to the contrary, their radio systems must be designed to ensure coverage over the licensees' primary business operations.

For public service utilities and pipeline companies, coverage is usually needed over extremely large service territories. Requiring these entities to reduce power or antenna height to some arbitrary limit would serve only to require these licensees to purchase additional radio transmitting facilities.[39/] UTC therefore urges the Commission not to adopt such a simplistic power-reduction requirement for non-commercial radio services, such as the Public Service Industrial Pool.

If, however, the FCC finds in the record of this docket that standards are needed to ensure that licensees are authorized only for enough power to cover their service areas, UTC recommends adoption of LMCC's proposal for a two-part procedure: (1) use of a "safe harbor" table of power/height combinations; or (2) submission of coverage contours demonstrating use of the minimum power necessary to meet the applicant's needs.[40/]y An applicant should be free to use either approach in justifying its power/height

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[39/] The "Initial Regulatory Flexibility Analysis" accompanying the NPRM does not mention the severe financial impact of the proposed power/height limits.

[40/] LMCC "Consensus Plan," pp. 16-21.

combination. LMCC's proposal is a well-balanced approach that would: (1) ensure "overly high powered" systems are not authorized; (2) streamline the coordination and licensing process by limiting the need for applicants to submit coverage contours or detailed engineering analyses; (3) provide guidance to frequency coordinators; and (4) permit more flexibility to the Exclusive Use Overlay process.

1. LMCC's "Safe Harbor" Table Should Be Adopted

UTC agrees with LMCC that a "safe harbor" table of permissible power/height combinations would simplify the process of reviewing applicants' engineering proposals. It is important to note the fundamental difference between the power/height reduction tables proposed by the Commission and the "safe harbor" table proposed by LMCC. While the FCC's proposed table would actually restrict licensees to operating "cookie-cutter" radio systems with a coverage radius of about 15-20 miles, LMCC's safe harbor table would provide a convenient method for the coordinator and the Commission to verify that the applicant is not requesting substantially more power than reasonably necessary to meet its coverage requirements.[41/]

[41/] In supporting use of safe harbor tables, UTC does not necessarily support use of R-6602, which was used in preparing the sample tables appended to LMCC's "Consensus Plan."

By classifying stations according to their coverage, it is also possible to create a table of recommended co-

fringe of its nominal service area. In these situations, the applicant must have a means to justify to the coordinator and the Commission that the power proposed is reasonable. Use of such a procedure should be minimal, as UTC believes that the values given by the safe harbor table would be sufficient for at least 90% of the applications filed.

The frequency coordinators should have primary responsibility for reviewing an applicant's request to use higher power than would be permitted under the safe harbor table. To ensure that coordinators would be able to adequately address these showings, the Commission should, by rule, empower coordinators to request whatever additional information deemed necessary to review the bona fides of the applicant's proposal. UTC also supports LMCC's recommendation that the applicant should bear the burden of proof and persuasion in overturning the coordinator's recommendations, with, of course, the Commission retaining final authority to resolve licensing issues.

B. Emission Masks Should Be Stringent

The Commission has proposed new emission masks for the new, narrower bandwidth channels below 512 MHz.[43/]

[43/] NPRM, §§88.421(c) and (d).

Specifically, for the very narrowband channels proposed in the NPRM the Commission proposes a mask that would provide 40 dB of attenuation at the edge of the authorized channel, 50 dB at the edge of the authorized bandwidth of the adjacent channel, and 65 dB of attenuation thereafter.

Because one of the goals of this proceeding is to encourage use of narrower bandwidth channels and to eliminate adjacent channel frequency coordination, UTC urges the Commission to adopt a strict emission mask for these new narrowband channels. For example, UTC recommends that the maximum attenuation factor of 65 dB be removed from proposed Sections 88.421(c)(2) and 88.421(d)(2), and that attenuation at these frequencies continue to be based primarily on the output power of the transmitter (e.g., 55 + 10log(P) dB, or 42 + 10log(P) dB, as under current Section 90.209(c)).

C. Streamlined Licensing Rules Should Be Adopted For Fixed Operations at 72-76 MHz

UTC supports the Commission's proposal to replace current rules on fixed use of the 72-76 MHz band with the more streamlined rules currently in effect for similar operations by common carriers.[44/] UTC is not aware of any interference problems between fixed operations in the 72-76

[44/] NPRM, §88.1189.

MHz band and reception of television channels 4 or 5. The proposed rules, which clearly place the burden on the PLMR licensee to eliminate any harmful interference caused to television reception on these channels, would effectively resolve interference problems while greatly reducing the burden on applicants for these channels.

D. Channels Should Be Designated For Itinerant and Temporary Operations

UTC supports the Commission's proposal to designate certain channels in the VHF low band, VHF high band, and the UHF band for itinerant operations only. In addition to public service mutual aid channels, utilities and natural gas pipeline companies often have need to operate itinerant stations; for example, when it is necessary to establish temporary communications facilities in an area to coordinate storm or disaster restoration efforts, or to provide additional communications capacity during large construction projects.

In addition to the VHF and UHF bands, UTC recommends that the Commission include in this rule the 800 and 900 MHz channels that have been informally reserved for itinerant operations. It is well-known, and tacitly approved by the Commission, that these channels may be coordinated only for itinerant operations. UTC therefore

recommends that these de facto itinerant channels be formally designated as such in the rules.

VII. EXCLUSIVITY AND OTHER LICENSING ISSUES

A. Exclusive Use Overlay Should Be Permitted

UTC supports the Commission's proposal to afford exclusivity through an Exclusive Use Overlay (EUO) process. However, the Commission must provide more flexibility in its regulations regarding EUO so as to permit: (1) different licensees to obtain different size EUO areas; (2) public safety systems not operating in the Public Safety Radio Services pool to be eligible for EUO and to be notified of EUO applications through the "public safety" approaches proposed in Section 88.187 and 88.191; (3) the protection of mobile-only systems through EUO and the protection of EUO systems from new mobile-only systems; and (4) a non-licensee applicant for EUO to obtain a temporary licensing freeze under Section 88.195.

First, the Commission should promulgate more flexible EUO regulations which would allow different licensees to obtain different EUO areas. Under the regulations proposed by the Commission, a licensee would be able to obtain EUO for a 50 mile radius from its base station, but would be unable to obtain smaller or larger EUO areas.

To solve this problem, UTC supports the LMCC "Consensus Plan" proposal to tie a licensee's EUO radius to its system size, as determined by the power/height tables described above. While the distance separation tables are primarily intended as guidelines for frequency coordinators, a licensee could request enforceable rights under these tables by securing concurrence from all co-channel licensees within the co-channel separation radius. Each licensee could select the area within which it wants protection from co-channel users by securing concurrence from all co-channel users within that radius. The licensee would then be able to enforce the separation distances in the table against co-channel applicants up to the radius within which it has secured concurrence.

For example, a licensee in the VHF-high band with a 40-mile service radius could request protection for its entire service radius if all co-channel users within at least 86 miles of its transmitter site concur.[45/] In order to secure more complete protection for its 40-mile service radius, the licensee could secure concurrence from co-channel users beyond 86 miles, up to a maximum of 165

[45/] According to Appendix B of the LMCC "Consensus Plan", 86 miles is the recommended separation distance between a 40-mile system and a 2-mile system. Thus, to protect the 40 mile system, concurrence would have to be obtained form all users within at least 86 miles.

miles.[46/] Thus, for example, if the licensee secures concurrence from all co-channel users within 100 miles of its transmitter site, it would be entitled to enforce the maximum mileage separations in Appendix B, but it would not be entitled to enforce separations of greater than 100 miles from its transmitter site.

The size of the EUO area requested should not be dependent on the system's loading. The Commission's proposed loading requirements in Section 88.187 should apply as a minimum criterion for EUO licensing and should not vary with regard to the size of the EUO or service territory. Instead, the Commission's minimum loading requirements should provide the basis for determining whether a system is making sufficient use of the spectrum to merit EUO. However, once a licensee demonstrates that it meets the threshold loading criteria to qualify for EUO, system loading should not play any role in the size of the applicant's EUO radius.

The "Exclusivity for Efficiency" plan proposed by NABER[47/] unnecessarily restricts EUO. Under this proposal, applicants would have to meet greater

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[46/] Appendix B of the LMCC "Concensus Plan" shows a recommended separation distance of 165 miles between a 40-mile system and a 63-mile system.

[47/] NABER, p. 3.

efficiency/loading requirements for larger EUO areas; the larger the EUO area, the greater the efficiency standard that would have to be met. Such a plan is needless because requiring EUO applicants to meet the minimum loading requirements would ensure that efficient use would be made of the spectrum. Also, requiring an EUO applicant to obtain concurrence from all preferred licensees would guarantee that only those licensees which place the greatest value on the spectrum, and are willing spend the time and money to obtain such concurrences, would obtain EUO. Establishing a sliding scale of loading/efficiency requirements for EUO areas would be redundant in light of the market forces that would exist to promote efficiency. Finally, an "exclusivity for efficiency" program, the standards for which are not yet defined, would needlessly complicate the licensing process and thereby virtually assure that only large system licensees would benefit.

Second, the Commission should clarify that Sections 88.187(d) and 88.191(d) would apply to systems used for safety-related functions although not necessarily operating in the Public Safety Radio Services pool. Section 88.187(d) would require EUO applicants to obtain concurrence from existing systems operating base stations of at least 3 watts if "[f]ailure of that system would create an <u>imminent</u> <u>danger</u> to the public safety."

Similarly, Section 88.191(d) would permit systems whose failure would threaten the public safety to be eligible for EUO.

UTC agrees that all critical-use systems should concur in the granting of an EUO application and be eligible for EUO. Therefore, UTC seeks clarification that there is no arbitrary difference between critical-use systems just because they are licensed in different service pools. To eliminate any suggestion that only radio systems licensed in the Public Safety Radio Service would qualify under these provisions, UTC recommends that the term "public safety," as used in these two sections, be replaced with the terms "public safety, health or welfare."

Third, the Commission must provide enough flexibility to permit mobile-only systems to obtain EUO and, conversely, to protect EUO licensees against interference from mobile-only systems. The proposed EUO rules appear to ignore mobile-only systems. Mobile-only systems are excluded from EUO eligibility, from EUO concurrence, and from EUO interference rules.

Under the proposed rules, mobile-only systems are excluded from EUO eligibility. According to Section 88.191, an EUO applicant must obtain concurrence from all

preferred existing licensees within 50 miles of its base station. Further, EUO licensees are protected only within 50 miles from their base stations. Thus, it appears that mobile-only systems could not obtain EUO. However, because many utilities, pipelines and other companies use mobile-only systems as critical components of their communications networks, these systems are well-deserving of protection.

The proposed EUO rules also do not require EUO applicants to obtain concurrence from mobile-only systems. However, because mobile-only systems are deserving of protection, they should be notified of and concur with an EUO application before it is granted.

The failure to account for mobile-only systems in the EUO rules would also permit the implementation of new mobile-only systems within an EUO area. Section 88.179 precludes the granting of additional licenses for base or fixed station within the EUO area. Additionally, Section 88.183 only limits co-primary existing licensees within 50 miles from constructing base stations, control stations and fixed stations. These Sections do not limit the granting of licenses for or the operation of mobile-only systems. Thus, new mobile-only systems could operate on the same frequencies as the EUO licensee without violating the proposed EUO rules and the EUO licensee would lose the

right to control co-channel interference that it worked so hard to obtain.

In order to address the problem of interference from mobile-only systems, the Commission should modify its proposal to preclude any additional mobile-only systems or new mobiles operating on new frequencies in an EUO area without the EUO licensee's permission.

Mobile-only system licensees seeking EUO status should be subject to the same rules as systems with base stations. Mobile-only systems should have to meet the applicable minimum loading requirements of Sections 88.271 to 88.293. Furthermore, mobile-only systems should be granted the same flexibility to tailor the size of their EUO area based on

reduce the burden on both the FCC and the applicant. UTC therefore requests that this convenience be extended to those who do not yet have licenses.

In order to ensure that the implementation of EUO is practical as well as flexible, UTC recommends that the Commission modify proposed Section 88.187 to provide that those seeking to be notified as "preferred existing licensees" should register with the Commission. This registration should include: (1) the qualifying characteristics of preferred existing licensees - whether it is a large system meeting the requirements of Section 88.187 (a), (b) and (c) or whether it is a "public safety" system meeting the requirements of Section 88.187 (a), (b) and (d); and (2) a verification by an appropriate company official as to the accuracy of the information in (1). No Commission approval should be required and any objections to the notification should be raised only by EUO applicants.

Requiring the registration of preferred existing licensees is necessary to make EUO workable. Without such concurrence, EUO applicants would have no easy way of determining which companies are preferred existing licensees. The specific information required about the co-channel licensees under Section 88.187 would be difficult,

if not impossible, to obtain. For instance, it would be impossible for an EUO applicant to know whether a system that does not satisfy the loading requirements of 88.187(c) qualifies as a preferred existing licensee under the "public safety" approach of Section 88.187 (d).

B. "Antenna Farms" Should Be Regulated

The Commission's proposal to reduce operative bandwidth as well as antenna height and power levels will mean that users will require more transmitters to cover the same service areas. Further, by increasing the number of available channels, there will be a greater number of licensed stations operating in the Private Land Mobile Radio Services. As a result, congestion on transmitter sites will increase. To ensure that the risk of interference, such as from intermodulation effects, is limited, the Commission should add a definition of "antenna farms" to Section 88.7 and should regulate the management of these sites.

For example, the rules could require that if there are more than three users at a single site, or at sites within 1/2 mile of each other, the FCC has the right to impose tighter emission standards than those proposed in Section 88.421. Also, the rules could impose special limits on broadcast or cellular systems operating on the same site.

In any event, Section 88.421 should be amended to give the FCC the right to require additional measures to limit harmful interference, as is currently provided in Section 90.209(e). Thus, proposed Section 88.421 should be modified to include the following provision:

> (i) When radiation in excess of that specified in paragraphs (a), (b), (c), (d), (e), (f) and (g) of this section results in harmful interference, the Commission may require, among other available remedies, appropriate technical changes in equipment to alleviate the interference.

C. An Extended Implementation Schedule Should Be Permitted for Certain Types of Systems

Section 88.135 of the proposed rules would permit an applicant an extended period of up to five years to place a station in operation in certain situations: (1) the

expenditures. Generally, a significant amount of time is needed to present the need for additional telecommunications expenditures to utility management and to obtain approval. The proposed extended implementation approach would allow applicants more time to plan adequately, fund and coordinate new and more complex systems without the necessity of a rule waiver. In addition, it is often in the best interest of utilities to spread large expenditures over a number of years so as to avoid an increased cost to the consumers who, although they ultimately benefit from the telecommunications systems, also pay for them.

The five-year period would be consistent with the Commission's rulings regarding service rules for construction of 800 MHz private land mobile systems, nationwide systems in the 220-222 MHz band,[48/] FleetCall's digital Specialized Mobile Radio (SMR) network[49/] the

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[48/] Report and Order, Amendment of Part 90 of the Commission's Rules to Provide for the Use of the 220-222 MHz Band by the Private Land Mobile Radio Services, 6 FCC Rcd 2356 (1991).

[49/] In re Request of Fleet Call, Inc. for Waiver and Other Relief to Permit Creation of Enhanced Specialized

Advanced Train Control Network[50], and the Commission's recent decision in PR Docket 92-210 regarding applicants for frequencies in the Public Safety, Industrial/Land Transportation, Business and General Category, and SMR Pools.[51] In each case, the Commission recognized the enormity of the logistics of planning and funding a multiple site system and chose to allow extended construction periods for these large systems. There is no reason not to permit similar extended implementation periods in the bands below 512 MHz.

Extended implementation should also be available to EUO licensees. UTC disagrees with the Commission's proposal in Section 88.191(c) to require EUO licensees to meet the loading standards within 8 months of authorization. An eight month time period is insufficient and encourages applicants to take the risk of ordering equipment before authorization. Indeed, in many cases substantial modifications to systems would be required in order for a licensee to meet the loading requirements. Therefore, the Commission should modify this provision to

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[50] In re Waiver of Sections 90.621(d), 90.623(a), 90.629, 90.633 and 90.651(c) of the Commission's Rules to License Use of Six Conventional 900 MHz Frequency Pairs For An Advanced Train Control System, 3 FCC Rcd 427 (1988).

[51] Report and Order, PR Docket No. 92-210 (adopted May 13, 1993).

provide that an EUO licensee must meet the loading standards within 8 months or such later period of time as may be permitted under the authorization to construct the system.[52/]

D. No Finder's Preferences Should Be Awarded

UTC opposes the Commission's proposal in Section 88.229[53/] to implement a "finder's preference" program in the shared bands below 512 MHz. Under such a program, applicants that submit information that leads to the recovery of channels due to the failure of other licensees to meet particular regulations are given a "dispositive preference" toward the channels recovered. UTC questions whether a finder's preference program is workable in the generally shared frequencies below 512 MHz. Even under EUO, the only regulatory mechanism which permits even a degree of exclusivity in most of these bands, channels are shared until the EUO licensee has arranged for the removal or relocation of all existing co-channel licensees in its protected area.

At the very most, finder's preference should be limited to situations where an applicant has secured EUO

[52/] UTC assumes that an EUO licensee would be required to obtain separate authorization to make modifications to its system to meet the loading requirements.

[53/] NPRM, §88.229.

status for a new, unconstructed frequency, but fails to construct in the relevant construction period. In such cases, the "finder" should secure the former licensee's rights to the channel. Finder's preferences should not be applied to cases where an existing licensee on a constructed channel secures EUO status, and then fails to meet the "efficiency standards" on the channel. It would be unreasonable in such a case to assign the channel to a "finder". Instead, the licensee should simply lose its EUO status, but retain its rights to use the channel on a shared basis. Given the practical difficulties and limited usefulness of a finder's preference program in the bands below 512 MHz, UTC recommends against its adoption.

E. The Limit on the Number of Shared Channels Authorized Should Be Relaxed

UTC supports the relaxation of the limit on the number of shared channels authorized as there is no reason for a strict limit. In fact, the non-enforcement of the current limit in Part 90 has not resulted in channel-hoarding. Instead of establishing a strict limit, the FCC should be

VIII. MISCELLANEOUS TECHNICAL CORRECTIONS

The following are suggested technical or conforming amendments that would be required with respect to the draft of Part 88 as proposed in the NPRM.

A. Combined Frequency List (§88.1501)

The table of frequencies available under Part 88, at Section 88.1501, omits reference to the 2-25 MHz band, which may be used for long distance communications. (See current Section 90.266, and proposed Section 88.1283). A reference to this band and Section 88.1283 should be included in the Combined Frequency List.

B. Conditional Permits (§88.151)

Section 88.151(b) contains an erroneous reference to "§ 90.75". This should be corrected to "§ 88.75".

C. Mobile Relay Stations (§88.473)

Section 88.473(b)(2) currently reads as follows:

> Mobile relay stations with an output power of more than one watt must utilize coded signal or tone control devices to activate the station. The station must be deactivated when reception of the activating continuous coded tone signal stops.

As currently written, the last sentence of this Section implies that only "coded tone" signals are permissible. UTC recommends that this sentence be revised to clarify that either coded signal or tone control must be used:

> The station must be deactivated when reception of the activating coded signal or tone control signal stops.

D. Slow Growth (§88.135)

As currently written, Section 88.135 would permit "slow growth" authorizations "[o]n frequencies above 150 MHz listed in Subpart D, except the 220-222 MHz band." Under Part 90, applicants for frequencies in the 220 MHz band are currently permitted to request slow growth status.[54/] UTC therefore requests the Commission to correct Section 90.135 to delete the exclusion of the 220-222 MHz band from the slow growth rules.

IX. CONCLUSION

UTC applauds the Commission's initiative to make more effective and efficient use of the bands below 512 MHz through the introduction of more spectrally-efficient technologies and coordination/licensing procedures. However, in crafting regulations the

Thus, any regulations that would dramatically restructure the private radio bands below 512 MHz must provide a graceful transition that: (1) allows amortization of existing equipment; and (2) ensures the operational stability of existing and anticipated utility communications capabilities.

WHEREFORE, THE PREMISES CONSIDERED, the Utilities Telecommunications Council respectfully requests the Commission to take actions consistent with the views expressed herein.

Respectfully submitted,

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